

Name(s) of Risk Team Members: P. Cirnigliaro, A. Etkin, R. Karol, E. Lessard, J. Maraviglia, D. Passarello, A. Piper, R. Savage, J. Scott, M. Van Essendelft			Point Value → Parameter ↓		1		2		3		4		5				
Area/Facility Description Title: Collider-Accelerator Department  Area/Facility # (if applicable): EBIS in Building 930 FRA 20			Occupancy or Use		≤once/year		≤once/month		≤once/week		≤once/shift		>once/shift				
Area/Facility Description: EBIS Area-Wide			Severity		First Aid Only		Medical Treatment		Lost Time		Partial Disability		Death or Permanent Disability				
			Likelihood		Impossible		Unlikely		Possible		Probable		Multiple				
Approved by: <i>E. Lessard</i>  Date: 7/20/04      Rev.#: 1									Comments:								
Reason for Revision (if applicable):  FRA number added. Uniform hazard nomenclature added.																	
					Before Additional Controls								After Additional Controls				
Physical Item or Activity	Hazard(s)	Control(s)	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	Control(s) Added to Reduce Risk				Occupancy A	Severity B	Likelihood C	Risk* AxBxC	% Risk Reduction		
Radiation	See <a href="#">Facility-Wide Radiation Evaluation</a>	See Facility-Wide Radiation Evaluation															
Electrical	See <a href="#">Facility-Wide Electrical Evaluation</a>	See Facility-Wide Electrical Evaluation															
High voltage electrical systems	See <a href="#">Facility-Wide Electrical Evaluation</a>	See Facility-Wide Electrical Evaluation															
Housekeeping	See <a href="#">Facility-Wide Housekeeping Evaluation</a>	See Facility-Wide Housekeeping Evaluation															
Fire	See <a href="#">Facility-Wide Fire Evaluation</a>	See Facility-Wide Fire Evaluation															
ODH	See <a href="#">Facility-Wide ODH Evaluation</a>	See Facility-Wide ODH Evaluation															
Material Handling	See <a href="#">Facility-Wide Material Handling Evaluation</a>	See Facility-Wide Material Handling Evaluation															
Water	Being struck by an object due to a pressure release	Postings, maintenance, PPE, training, work planning, ASSRC review, procedures, Tier 1 inspections	4	3	2	24											
Water	Contact with temperature – extremes that result in such injuries as heat exhaustion, frost bite or burns	Postings, maintenance, PPE, training, work planning, ASSRC review, procedures, Tier 1 inspections	4	3	2	24											
Cryogenic	Being struck by an object due to a pressure release	Postings, maintenance, training, work planning, LOTO, Cryogenic Safety Committee /ASSRC/ESRC reviews, procedures, PPE, interlock systems, Tier one inspection, pressure testing	4	3	2	24											
Cryogenic	Contact with temperature – extremes that result in such injuries as frost bite or burns	Postings, maintenance, training, work planning, LOTO, Cryogenic Safety Committee /ASSRC/ESRC reviews, procedures, PPE, interlock systems, Tier 1 inspection	4	3	2	24											
Pressurized Gas Systems	Being struck by an object due to a pressure release	Postings, PPE, maintenance, training, work planning, Cryogenic Safety Committee /ASSRC reviews, procedures, interlock systems, Certification/testing of pressure related equipment, Tier 1 inspections, LOTO, C-AD Chief ME reviews, codes and standards usage	5	3	2	30											

Vacuum	Ear damage	Postings, PPE, maintenance, training, work planning, ASSRC reviews, procedures, Tier 1 inspections, Chief ME reviews, vacuum windows covered during handling, use of industry standards, design reviews	4	4	2	32					
Vacuum	Being struck by an object due to a vacuum failure	Postings, PPE, maintenance, training, work planning, ASSRC reviews, procedures, Tier 1 inspections, Chief ME reviews, vacuum windows covered during handling, , use of industry standards, design reviews	4	4	2	32					
Work at heights	Falls to lower level, such as falling from a ladder or over a railing	Postings, barriers, maintenance, training, work planning, procedures, Tier 1 inspections, approved ladders, anti-slip surfaces	3	4	3	36					
Magnetic Field	Adverse mechanical force exerted on ferromagnetic objects and or to electronic/medical implants	Barriers, warning systems, postings, training, ASSRC review, work planning, procedures, Tier 1 inspections, magnetic safety reviews, medical exams	5	4	2	40					
Chemicals	Exposure	Postings, barriers, PPE, maintenance, training, work planning, procedures, Tier 1 inspections, CMS, MSDS	3	2	2	12					
Chemicals	Fire/explosion	Postings, barriers, PPE, maintenance, training, work planning, procedures, Tier 1 inspections, CMS, MSDS	3	2	2	12					
Chemicals	Reactive metals	Postings, barriers, PPE, maintenance, training, work planning, procedures, Tier 1 inspections, CMS, MSDS	2	2	2	8					
Further Description of Controls Added to Reduce Risk:											
*Risk:	0 to 20	21 to 40	41-60				61 to 80			81 or greater	
	Negligible	Acceptable	Moderate				Substantial			Intolerable	